



10CFR50.73

July 2, 2012

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Limerick Generating Station, Unit 1
Facility Operating License No. NPF-39
NRC Docket No. 50-352

Subject: LER 2012-003-00, Valid Manual Actuation of the Primary Containment
Isolation System

This Licensee Event Report (LER) addresses a valid manual actuation of the primary containment isolation system in response to a low delta pressure condition in reactor enclosure secondary containment. The manual actuation affected primary containment isolation valves in more than one system.

This LER is being submitted pursuant to the requirements of 10CFR50.73(a)(2)(iv)(A).

There are no regulatory commitments contained in this letter.

If you have any questions, please contact Robert B. Dickinson at (610) 718-3400.

Respectfully,

Original signed by

Thomas J. Dougherty
Vice President – Limerick Generating Station
Exelon Generation Company, LLC

cc: W. Dean, Administrator Region I, USNRC
E. DiPaolo, USNRC Senior Resident Inspector, LGS

cc: T. Dougherty-GML 5-1
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C. Rich-GML 5-1
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D. Helker-KSA
D. Doran-SSB 3-1

LICENSEE EVENT REPORT (LER)(See reverse for required number of
digits/characters for each block)

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA/Privacy Section (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME

Limerick Generating Station, Unit 1

2. DOCKET NUMBER

05000352

3. PAGE

1 OF 3

4. TITLE

Valid Manual Actuation of the Primary Containment Isolation System Due to Ventilation System Trip

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
05	02	2012	2012	- 003 -	00	07	02	2012	FACILITY NAME	DOCKET NUMBER 05000
9. OPERATING MODE			11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)							
1			<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)		<input type="checkbox"/> 50.73(a)(2)(i)(C)		<input type="checkbox"/> 50.73(a)(2)(vii)		
			<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)		<input type="checkbox"/> 50.73(a)(2)(ii)(A)		<input type="checkbox"/> 50.73(a)(2)(viii)(A)		
10. POWER LEVEL			<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)		<input type="checkbox"/> 50.73(a)(2)(ii)(B)		<input type="checkbox"/> 50.73(a)(2)(viii)(B)		
			<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)		<input type="checkbox"/> 50.73(a)(2)(iii)		<input type="checkbox"/> 50.73(a)(2)(ix)(A)		
			<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)		<input checked="" type="checkbox"/> 50.73(a)(2)(iv)(A)		<input type="checkbox"/> 50.73(a)(2)(x)		
			<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)		<input type="checkbox"/> 50.73(a)(2)(v)(A)		<input type="checkbox"/> 73.71(a)(4)		
			<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)		<input type="checkbox"/> 50.73(a)(2)(v)(B)		<input type="checkbox"/> 73.71(a)(5)		
			<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)		<input type="checkbox"/> 50.73(a)(2)(v)(C)		<input type="checkbox"/> OTHER		
			<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)		<input type="checkbox"/> 50.73(a)(2)(v)(D)		Specify in Abstract below or in NRC Form 366A		

12. LICENSEE CONTACT FOR THIS LER

NAME

Robert B. Dickinson, Manager – Regulatory Assurance

TELEPHONE NUMBER (Include Area Code)

610-718-3400

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED☐ YES (If yes, complete 15. EXPECTED SUBMISSION DATE)☒ NO**15. EXPECTED SUBMISSION DATE**

MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

A valid manual actuation of the primary containment isolation system was initiated in response to a low delta pressure condition in reactor enclosure secondary containment. The manual actuation affected primary containment isolation valves in more than one system. The cause of the event was a trip of the reactor enclosure ventilation system. The cause of the ventilation system trip has not been determined. Operators initiated a "B" manual secondary containment isolation as directed by the low delta pressure alarm procedure. The reactor enclosure ventilation system was restored to service and continues to operate normally.

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NARRATIVE

Unit Conditions Prior to the Event

Unit 1 was in Operational Condition (OPCON) 1 (Power Operation) at approximately 100% power. There were no structures, systems or components out of service that contributed to this event. The 1A exhaust fan was unavailable for automatic start on loss of the 1B or 1C exhaust fan.

Description of the Event

On Wednesday, May 2, 2012, Limerick Unit 1 was operating at approximately 100% power. At 0718 hours, the Unit 1 reactor enclosure ventilation system (EIIS:VA) tripped which resulted in a low delta pressure condition in reactor enclosure secondary containment (EIIS:NH). A valid manual initiation of the secondary containment isolation system was performed as directed by procedure. The actuation resulted in closure of primary containment isolation valves (PCIVs) (EIIS:ISV) in the instrument gas system. Containment atmospheric control (CAC) PCIVs that were in their normally closed position also received a closure demand.

An investigation did not identify the cause of the ventilation system trip. The isolation signal was reset, the affected PCIVs were restored to the pre-event positions, and the ventilation system was restored to service. Temporary instrumentation was installed on the reactor enclosure ventilation system to monitor the system performance.

An 8-hour NRC ENS notification was required by 10CFR50.72(b)(3)(iv)(A) for a valid manual actuation of the primary containment isolation system. The ENS notification (#47888) was completed on Wednesday, May 2, 2012 at 1315 EDT. This event affected primary containment isolation valves in more than one system. Therefore, this LER is being submitted pursuant to the requirements of 10CFR50.73(a)(2)(iv)(A).

Analysis of the Event

There was no actual safety consequence associated with this event. The potential safety consequences of this event were minimal. The primary containment isolation system operated as designed and closed PCIVs in the instrument gas system. The low delta pressure condition in the reactor enclosure did not result in degradation of secondary containment integrity other than a brief period of operation with a

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low delta pressure condition. Normal reactor enclosure secondary containment delta pressure was restored when the standby gas treatment system (SGTS) and reactor enclosure recirculation system (RERS) automatically started as a result of the manual initiation of the reactor enclosure secondary containment isolation.

Per UFSAR 9.4.2.1.3, safety-related equipment in the reactor enclosure is designed to perform safety functions under the environmental conditions resulting from a loss of the normal ventilation system. Per TS 3.6.5.1.1 Reactor Enclosure Secondary Containment Integrity surveillance requires pressure within the reactor enclosure secondary containment to be maintained greater than or equal to 0.25 inch of vacuum water gauge.

Cause of the Event

The cause of the event was a trip of the reactor enclosure ventilation system that resulted in a low reactor enclosure secondary containment delta pressure condition and alarm (EIIS: ALM). The operators initiated a "B" manual secondary containment isolation as directed by the alarm procedure. The cause of the ventilation system trip has not been determined.

Corrective Action Completed

The reactor enclosure ventilation system was restored to service and continues to operate normally.

Corrective Action Planned

None

Previous Similar Occurrences

There were no recent previous similar occurrences of reactor enclosure ventilation system trips that resulted in manual actuation of the primary containment isolation system.